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RNA Folding at 600 mM Salt

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Folding nucleic acids into compact, stable structure requires the neutralization of negative charges on the phosphate backbone by cations. Kinetic studies using our new "footprinting" technique, stopped-flow synchrotron x-ray "footprinting" suggest that both high monovalent ions and Mg^{2+} are critical for the completion of this event. Previous results suggest that Mg^{2+} and high salt play an important role in the folding of the *Tetrahymena thermophila* group I intron that occurs on timescales ranging from milliseconds to minutes, the folding study will be conducted at and in the presence of both high salt (600 mM Na^+) and Mg^{2+} . Preliminary data indicates that appearance of catalytic activity is sped up at this salt concentration.